INNOVATION ACCELERATED

Simplify your edge to generate more value

D&LL Technologies

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Simplify your edge to generate more value

In our recent eBook, *"Innovation Accelerated: How to turn ideas to impact faster"*, we explored the relationship between how an organization approaches and prioritizes innovation and its overall competitive success.

This eBook explores the role that the edge plays in helping organizations innovate successfully and realize their future goals. From smart shop floors or factories to connected cars and energy grids, edge technology has the potential, and is increasingly revolutionizing, each and every industry through countless different use cases. Yet they're only scratching the surface. There's abundantly more innovation to be had at the edge. Organizations need a strategy to unlock that innovation.

With the edge, data no longer needs to traverse a network to be processed in a cloud or datacenter; latency can be slashed and organizations can access faster, deeper data analysis to inform their innovation decisions and differentiate their customer experiences. Organizations can remove the distance between their people and their technology and get up close and personal with their data. Essentially, they can generate value everywhere their data exists.

This is without question an enormous opportunity. However, Dell Technologies' new study, *the Innovation Index*, suggests that one of the main barriers organizations face at the edge is complexity. With that in mind, what all organizations must do to reach their innovation potential is simplify their edge.

This paper will draw insights from the Innovation Index. We'll explore the importance of innovation to the success of modern-day organizations, the relationship between edge and innovation maturity, and the three strategic steps organizations should take to advance their innovation at the edge.

Edge definition

For the purposes of our study, 'edge' was defined as where data is acted on near its point of creation to generate immediate, essential value. It is a series of locations where data is used to create something new and useful.

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> *The edge provides the ability to act on live data, intelligently and rapidly. Achieving this newfound agility is the currency of customer experience. If you are a customer obsessed organization, the edge done right will help you create the sort of services your customers will love, and in turn love you for.*

Varun Chhabra, Senior Vice President, Infrastructure and Telecom Marketing, Dell Technologies

Key Findings

Security plays a central role in ensuring that employees can ideate and innovate anywhere, anytime. But how well are organizations able to do this?

Only **41%**

of respondents say with the utmost confidence that security is embedded within their technology and applications.

52%   **48%**

At present, the average organization spends more time firefighting security threats (52%) than enabling secure innovation (48%), highlighting that improvements can be made.

Focus area 2: RESILIENCE

Recover data and operations rapidly after cyberattacks and build proactive resilience with intelligent and scalable solutions.

27% have managed threat detection or automated response service in place

33% have a cyber recovery vault to protect high-value data

Focus area 1: PROTECTION

Secure and deploy data across any cloud, any workload, any consumption model and create a trusted workspace.

33% employ a holistic end-to-end security strategy integrating hardware and software protections

36% conduct audits for users, devices, assets, and cloud services to fully understand what needs to be protected

Focus area 3: CONFIDENCE

Embrace a Zero Trust mindset to future-proof your security strategy.

77% organizations have not yet explored or built a Zero Trust architecture

27% are uncertain around how to implement Zero Trust without compromising productivity

The relationship between edge maturity and the ability to innovate anytime

Building and measuring innovation resilience

Dell's Innovation Index study assesses how 6,600 respondents' organizations approach people, processes and technologies to aid or hinder their ability to innovate. It examines their innovation resilience by gauging their appetite for sustained purposeful innovation that can stand the test of time (and challenges).

Half of the respondents are IT decision-makers and half are business decision-makers shaping/influencing innovation in their organization. These respondents have been categorized into one of five innovation maturity groups—a spectrum that ranges from "Laggards" (least mature) to "Leaders" (most mature). This is the overarching Innovation Index benchmark.

Innovation Laggards	Innovation Followers	Innovation Evaluators	Innovation Adapters	Innovation Leaders
No innovation plans; limited initiatives and investments	Very few investments: tentative plans	Gradual innovation and planning	Mature innovation plans, investments in place	Innovation ingrained in DNA
3%	36%	43%	16%	2%

Figure 1: Showing innovation maturity model. Base: All respondents (6,600). More detailed description of each group can be found in the appendix.

Throughout this eBook we will explore how organizations' edge strategies relate to their overall innovation maturity and success.

Research shows organizations at the edge are more innovative

From the latest "just walk out" retail technologies that require zero checkout, to automated manufacturing systems that proactively identify improper use of safety gear resulting in near-zero risk to workers in a factory, edge use cases are all around us.

Innovators are taking advantage of the proliferation of millions of connected endpoints, and the emergence of integrated, automated, and intelligent solutions to process data at the edge, so they can get to insights faster.

Overall 41% of ITDMs say that edge is central to their organization's IT strategy and is unlocking innovation already. Which indicates that while the edge is no longer nascent, most organizations aren't innovating at the edge quite yet.

The variances across innovation maturity groups are particularly illuminating. Innovation Leaders and Adopters are markedly more likely to say edge is central to their IT strategy and unlocking innovation (57%), whereas only 29% of Innovation Laggards and Followers can make this claim. Instead, 58% from this maturity group recognize that the edge is important but are not yet seeing it unlock innovation across the organization and 12% are yet to even explore what the edge is and how it can benefit their organization. This delay could solidify their disadvantaged position.

Mature innovators are more likely to have unlocked innovation by putting the edge at the center of their IT strategy:

- 57% for Innovation Leaders and Adopters
- 29% for Innovation Laggards and Followers

What's more, Innovation Leaders and Adopters are disproportionately more likely to successfully leverage the edge to give them the capacity, flexibility and agility they need to innovate and future-proof their organization:

- 91% are managing ever-changing infrastructure requirements at the edge well or extremely well
- 97% are very or fairly confident that in just 1-2 years they will have future-proofed their organization at the edge

Given the power of the edge, we measured organizations' edge maturity. We uncovered a small proportion of Edge Leaders (5%) and Edge Adopters (8%). These organizations are innovating at the edge. Most are behind the edge curve. They need to prime their people, processes and technology to capitalize on data at the edge.
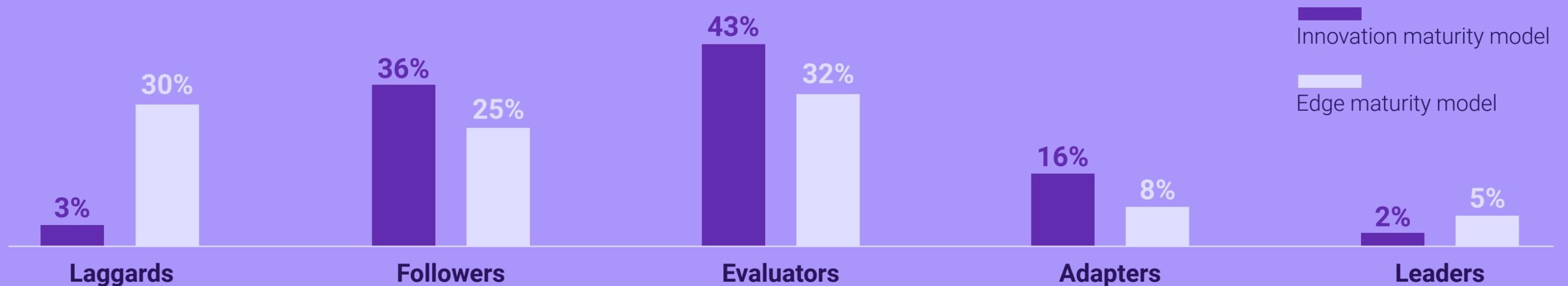

Figure 2: Showing innovation maturity model (all respondents = 6,600) and edge maturity model (ITDMs only = 3,350).

Looking at the correlation between the edge maturity measurement and the overall Innovation Index further supports the link between edge progress and innovation success.

Organizations that perform highly in terms of edge are much more likely to perform highly in terms of innovation:

63%
of Edge Leaders are Innovation Leaders or Adopters

55%
of Edge Leaders are Innovation Leaders or Adopters

Laggards that further delay their edge technology adoption may be left behind as disparities in business outcomes grow. Essentially, if you don't want to be relevant in five years, keep doing the same thing you have always been doing. That's because modern edge technology will help accelerate efficiencies, reduce costs and boost security, all in a scalable, reliable and repeatable way.

Todd Edmunds, Global CTO of Smart Manufacturing, Edge Compute, and Digital Twins at Dell Technologies

Simplify your edge to generate more value from your data
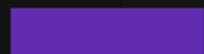
Key barriers

One of the main barriers organizations face when innovating at the edge is complexity. The sprawling, distributed nature of the edge means that from an IT standpoint, it can be difficult to manage. To build and operate distributed systems you need to operate distributed compute, manage resources, consider placement, sizing and scaling, deploy AI and analytics models, and manage many locations and non-homogenous providers. The complexity is sufficiently gargantuan to overwhelm IT teams and crush innovation.

As a result, ITDMs say their organization typically spends more time battling edge complexity (56%) than generating innovation at the edge (44%), on average.

The practicalities of unlocking innovation at the edge require a level of abstraction that many organizations are struggling to achieve:

Only 34%
of ITDMs claim to be consolidating and simplifying operations and infrastructure at the edge very well.

That's not a coincidence. Without simplicity (from consolidating their operations, infrastructure, and data even as they expand the scope and complexity of their edge deployments), organizations will continue to struggle with the edge and its vast scale.

Complexity also puts the edge out of reach for many IT Pros, who are already battling to keep-up with an ever-evolving IT landscape.

Just 34%
of ITDMs profess to have the skills to manage ever-changing infrastructure capacity requirements at the edge.

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The edge's ability to unlock innovation is real but it's not accessible to all, just yet. That's less to do with the technology and more to do with the people part. One of the greatest stumbling block to innovating at the edge is a lack of the right skills mix, specifically how to deploy AI at the edge. This is super pertinent to the ongoing debate about the future workforce in the age of AI. Some jobs will no longer be needed but we'll need a legion of new roles and for those roles, we'll need people who can learn and pick up new skills with alacrity.

Professor Sally Eaves, Author & Founder of Tomorrow's Tech Today and Aspirational Futures

Success factors when building your edge strategy

Organizations need a comprehensive edge strategy that addresses their technology, workforce and operational requirements. With greater edge maturity will come innovation resilience, so organizations must consider what this strategy looks like for them and how it can help them progress on their edge journey.

Here are three strategic areas to focus on when architecting an edge strategy:

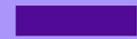| Generate insights where you need them	Consolidate as you expand	Bring modern security to the edge

Generate insights where you need them

Goal: Capture immediate value at or near the source of your data

Traditional data processing approaches are no longer fit for purpose given the sheer volume of data created and the need for a near-instant response.

From simple, low-power sensors to advanced robotics that employ machine learning, technologies deployed at the edge are evolving at a rapid pace. This means that many organizations now face considerable data gravity challenges. As data sets grow larger, the apps they fuel will become harder and harder to move. This can strain the supporting infrastructure, impede app performance and slow time to insights (i.e., organizations can't adapt quickly to changing circumstances).

Data gravity definition
Data gravity is the idea that as datasets continue to grow, they become increasingly difficult to move, meaning the data stays where it is. Where data gravity applies, things such as processing power and analytics applications need to move to where the data is.

This is evidenced in the Innovation Index. In each scenario, only 36% of ITDMs say they are doing the following very well:

- Collecting data at the edge
- Gaining real-time insights from the data collected
- Automating business decisions from these insights

To filter out the noise and swiftly find and act on the best insights, organizations need to automate at the edge. Automation unlocks the potential of the edge. It enables scalability by applying configurations more consistently across infrastructure and edge devices. It adapts to changing customer demands and only uses resources as needed.

Intelligent automation (using Natural Language Processing for instance) can design a program that can read, understand and take action based on intent expressed through the normal style of human communication. The real-world use cases for this are endless.

Innovators are already leveraging automation. With 75% of Innovation Leaders and Adopters saying they've fully embraced automation, they see they can only scale and compete in a data-driven world with AI.

Partnering for success

Our role at Dell Technologies is to help you generate more value from your data wherever it exists. We're here to partner with you as you _reimagine your edge operations_, bring powerful compute wherever you have people and operations, manage your data everywhere it exists and deploy technology to your edge locations faster and easier.

- Dell optimizes your IT estate for AI and analytics near the data source, so you can act faster to drive efficiencies and provide creative new value.
- Dell enables net-new workloads to run and generate insights where they can provide the most benefit as aligned to the needs of your organization.
- Dell provides the broadest portfolio of solutions at the edge, along with services and support, so you can innovate faster.

Watch this video to find out more about generating insights where you need them.

How edge can help advance sustainability

By embracing the edge and processing data closer to where it is created, organizations can also make substantive sustainability gains. With a simple edge strategy, organizations can flex their power usage based on actual consumption needs, fine tune their raw materials usage, and reduce energy consumption within networks by processing data where it is created rather than hundreds of miles away. These interventions aren't just good for the environment, they also represent significant efficiency gains that will save them money.

37% of ITDM respondents state that their organization is enabling sustainability benefits such as reduced emissions or energy usage at the edge extremely well

At present, 37% of ITDM respondents state that their organization is enabling sustainability benefits such as reduced emissions or energy usage at the edge extremely well. Innovation Leaders and Adopters are even more likely to claim this (52%).

In reality, there are many ways to leverage the power of the edge to advance human progress and make sustainability gains. For instance, edge technologies are enabling organizations to improve verification of carbon credits – those bought from third-parties to offset their carbon footprint. These credits can be highly vulnerable to fraud, but edge technologies can be used to verify and increase confidence in the legitimacy of these carbon credits. *Read our blog* to find out more about how this works.

Consolidate as you expand your edge

Goal: Optimize your IT landscape with consistent, unified and streamlined operations

Many edge solutions create silos because they are designed to solve single problems, not to scale and address multiple use cases. These silos are difficult to operate and connect. To realize manifold opportunities at the edge, first organizations must tackle and unify these data silos.

Which means, as edge-based deployments increase, so should the effort to consolidate edge solutions. It's no coincidence that Innovation Leaders and Adopters are more likely to be bringing order to their edge estate (48%).

48% of ITDMs at Innovation Leader and Adopter organizations state that they are consolidating and simplifying operations and infrastructure at the edge extremely well

Consolidation efforts shouldn't stop at IT solutions. Most organizations would benefit from aligning their IT and OT teams. In many organizations, IT and OT teams disagree about who defines the edge strategy, who makes purchasing decisions, where the budget comes from, etc. This friction hinders results. It's important to bring both sides into conversation and ensure edge deployments work well for all stakeholders.

Partnering for success

Dell Technologies banishes silos and delivers business outcomes in the following ways:

- We help you modernize your edge technology and data pipelines with consistent hybrid cloud architecture, operations and management, so you remove complexity across your edge use cases, sites and clouds.
- We help you consolidate as you expand with unified edge operations and data pipelines, simplified cloud experiences and consistently managed and automated infrastructure.
- As a result, you're able to drive innovation with the proper foundation to confidently evolve and grow your edge estate according to the needs of your organization.

Watch this video to find out more about consolidating as you expand.

Bring modern security to the edge

Goal: Confidently extend your edge with a holistic security approach

When the IT landscape shifted to connected cities, hospitals, and factories (all examples of edge in action), cybercriminals did the same and started surveilling weaknesses across a much larger distributed attack surface looking for single entry points to exploit.

This is foreboding for two reasons:
1. It's much harder to defend a wider area
2. A criminal only needs to compromise one device or endpoint at the edge (of which there are legion) to bring down the core of an entire network

With the changing security threat, organizations can no longer rely on traditional perimeter security measures that were sufficient yesteryear.

Organizations are becoming increasingly alert to the danger: The security threat is one of the foremost barriers limiting organizations' ability to act on data and innovate at the edge.

The threat is particularly acute as most organizations aren't ready for it and don't have the adequate safeguards in place.

Only
38% of ITDMs say that their organization is securing its edge hardware, applications and data extremely well

Though many ITDMs are optimistic they will overcome this threat with a holistic edge strategy and architecture in which security is interwoven.

- 42% are very confident their data will be secure and protected at the edge in 1-2 years.
- 59% are very confident that their org will have a holistic strategy and/ or architecture for the edge within the next 1-2 years.

This is certainly possible if they act quickly and strategically. They'll need a complete and carefully planned strategy for the edge that encompasses intrinsic security to protect their data, transactions and processes. A Zero Trust architecture that extends to the edge and denies every user, device and digital access until authenticated can provide this protection and assurance.

Partnering for success

Dell Technologies helps secure distributed data and infrastructure by taking a holistic approach and ensuring security is factored into considerations along the way. As part of that end-to-end approach:

- We embed security expertise into your infrastructure and processes, meaning you are equipped to confidently expand your IT environment to the edge and then capitalize on new opportunities there.
- We provide an edge operations software platform that secures your edge estate with Zero Trust principals, while enabling you to reinforce the security of your applications, data and infrastructure at every layer.
- We help prioritize trusted infrastructure solutions and services to enhance security, visibility and protection from endpoint to cloud – all backed by the assurance of a resilient and secure global supply chain.

Watch this video to find out more about consolidating as you expand.

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The edge presents an interesting security conundrum. On the one hand it enlarges the attack surface area exponentially. On the other, it can support cybersecurity efforts by providing infinitely more safety insights—quick access to real-time data that point to new threats. If edge is done well, it's a major security asset. If it's done poorly, it's a liability. But the thing is, it's also an inevitability. Compute will only get more distributed. So, organizations need to choose to do edge well.

Mark Lynd, Head of Digital Business, Netsync

Achieving Intelligence Everywhere

Edge applications blend human- and machine-generated data to open up operational efficiency and product and service creation like nothing else. In the end, physical "things" and digital experiences become seamless. For nearly a decade, we've been nurturing three technologies to bring edge mainstream and achieve intelligence everywhere:

1. **Networks that run in software.** The edge demands a sophisticated, software-defined network fabric, where workload service shifts in real time with demand, availability, and location. Over 90 percent of core telco networks will be moved to software by the end of 2023, and the RAN is well on its way.
2. **AI that is accessible and edge-ready.** Algorithmic and hardware advances for the edge are allowing more powerful insight using less energy. Furthermore, in this age of the "citizen developer," software development, and even data science, are available to both technical and business operations experts alike, thanks to increasingly low-code development tools and as-a-service platforms.
3. **Applications running seamlessly and securely anywhere.** Advancing open standards and a software-defined platform for the edge is helping unify the entire cloud-network-edge continuum, so applications can run anywhere without worrying about the underlying hardware complexity and they can be secured and orchestrated in a cohesive fashion.

As we drive toward mainstream edge computing, we must assess not only its value in reducing the world's energy consumption, as in "smart" buildings, but how the technology itself is environmentally responsible. Intel and its valued partners help drive the whole industry toward a future of more sustainable computing with eco-conscious manufacturing, more energy-efficient products, and circularity across the life cycle.

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The edge is complex and fragmented. Our software-defined approach abstracts this complexity, with a world-class ecosystem of deployment-ready solutions and software toolchains that make it easier for our customers to create, deploy and manage edge infrastructure and applications. Achieving a technology platform that can deliver has taken years of work—solving for operational and IT divides, driving open standards, bringing networks into software, optimizing AI for the edge, and making applications more portable.

Sachin Katti, Senior Vice President and General Manager, Network and Edge Group (NEX), Intel Corporation

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Lessons learned from innovators

The edge isn't the next frontier; it is THE frontier. In farming it's the equipment deployed in your fields. If you're an auto manufacturer it's the assembly line in your factories. If you're in healthcare it's in the ambulance, examination room, and radiology lab.

Organizations can learn a lot by looking at what the most advanced innovators – Innovation Leaders and Adopters – are doing at the edge.

Compared to Innovation Laggards and Followers, Innovation Leaders & Adopters are:

2.2x more likely to be very confident they will future proof their organization with the edge in the next 1-2 years

2.1x more likely to be very confident they will generate value from data insights and automation at the edge in the next 1-2 years

1.8x more likely to have achieved greater visibility of carbon impacts via telemetry data

One of the greatest things we can learn from innovators is their propensity to problem-solve. We see this in the study. Innovation Leaders and Adopters are leveraging the edge to overcome limitations that might otherwise quash their ability to create and compete. For instance, 89% of Innovation Leaders and Adopters are successfully overcoming limited network bandwidth with edge computing.

Another hallmark of an innovator is creating something entirely novel. Mercy Ships is an example of an incredibly novel and noble innovation, by bringing a state-of-the-art hospital to regions where clean water, electricity, and medical facilities and personnel are limited or nonexistent. It's a floating city and it's made possible by kind-hearted innovative-minded people and edge-technology. *This video explains the role that edge plays*.

INNOVATOR SPOTLIGHT:

The Kraft Group

# Kraft Group gets ultra-competitive at the edge

Idea

The Kraft Group, a holding company with diverse interests that include the New England Patriots, New England Revolution and Gillette Stadium wanted to create a more data-driven, immersive and secure experience for stadium guests and equip its 10,000 employees with the tools they need to drive growth. Remarking that "sports and business never sleep", its CIO sought a modern infrastructure that can keep pace with all the industries it supports.

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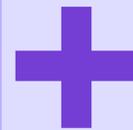
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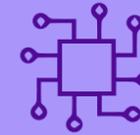
The group partnered with Dell to create a platform that will standardize IT across diverse businesses, capitalize on edge computing and enhance its cyber resilience, so it can deliver a safe, superior fan experience. It replaced aging technology with advanced automation and workload consolidation capabilities and invested to create a revolutionary mobile experience at the edge, whereby guests can use their mobile devices to find parking, get to their seats, order concessions directly from their seats, access fan-cam views, and interact with games and social media. It equipped its employees with AI computer vision for real-time view of security and smart analytics to monitor guest wi-fi access, point of sale (POS) transactions and stock levels.

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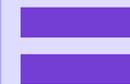
Impact

The privately owned organization fulfilled its mission to elevate the entire end-to-end guest experience with real-time interactions at live events, enhance safety throughout Gillette stadium and improve operations. What's more, its recent technology upgrade is delivering a measurable return on investment. The Kraft Group decreased storage expenditures by 25-30%, reduced its data center footprint by 60% and is advancing sustainability goals. But more than that: It has the technology it needs to be ultra-competitive and ultra-focused on its customers.

Learn more **here**

Conclusion

The edge is where we all are – in a building, on a ship, in the country, at an office or at a school. That makes the edge an ideal vehicle for impact. It's ideally positioned to remove the distance between where your business happens and where your technology lives, so you can rapidly turn your data into your next innovation.

Oftentimes, data is at its most valuable for a very short amount of time— sometimes just seconds or even less. The edge gives organizations the infrastructure they need to act on data while it still holds its value.

With that sort of game-changing potential, combined with the compounding, never-ending growth in data, the accelerated speed of its movement across data pipelines, and the opportunity to meet and analyze data at the source, there really isn't a business case for reverting back to a centralized model.

So, the question is not whether organizations should have an edge strategy, but rather, how do they ensure they're set up to maximize their future at the edge?

A lot needs to happen first to make the edge work for you, from optimizing your IT estate for AI and analytics near the data source, to modernizing edge technology and data pipelines and protecting all endpoints with a Zero Trust architecture.

Dell offers comprehensive management and orchestration at scale, so you innovate, compete and grow at the edge without compromising security.

The edge needn't be difficult. With Dell Technologies as your end-to-end partner, you can conquer complexity to generate data insights where you need them, consolidate as you expand your edge and do so with modern security.

To learn more about DellTechnologies' edge portfolio, visit
Dell.com/EdgeComputing

To learn more about building a holistic innovation strategy, visit
Dell.com/AccelerateInnovation

Innovation and security maturity curve group descriptions

Laggards	Followers	Evaluators	Adapters	Leaders
Innovation Laggards perform poorly across a range of innovation markers, with considerable improvements needed across the board. They almost never have processes in place to facilitate innovation and do not work with partners to improve innovation success. Leaders do not model or encourage innovation from across the organization.	**Innovation Followers** underperform across a range of innovation markers, with improvements needed. They are unlikely to have processes in place to facilitate innovation, but they may work with partners, in a limited capacity, to improve innovation efforts. Leadership is unlikely to encourage innovation across the organization.	**Innovation Evaluators** innovate in some areas but are mostly stuck in evaluation stage. They lack a clear and holistic strategy and means to move forward. They have processes in place to facilitate innovation and will partner with organizations to advance these efforts. Leadership needs to be coached to encourage innovation from across the organization.	**Innovation Adapters** are largely successful in their innovation efforts, but small improvements are needed. They're likely to have processes in place to facilitate innovation and often work with multiple partners to improve innovation efforts. Leaders encourage innovation from across the organization.	**Innovation Leaders** are successfully advancing innovation across the business. They have end-to-end processes in place to facilitate innovation and typically work with multiple partners to progress innovation efforts. Leaders actively encourage innovation from across the organization—their workforce is empowered to innovate.
Edge Laggards are likely to see the importance of edge but not yet unlocking innovation through edge, some have not even explored implementing edge yet. Where it applies, these organizations typically perform somewhat well in terms of simplifying operations at the edge, managing edge infrastructure, securing the edge, gaining insights from edge data and improving sustainability via the edge but have considerable room to improve.	**Edge Followers** are likely to see the importance of edge but are not yet unlocking innovation in this way. These organizations typically perform somewhat well in terms of simplifying operations at the edge, managing edge infrastructure, securing the edge, gaining insights from edge data and improving sustainability via the edge but have considerable room to improve.	**Edge Evaluators** are relatively likely to have edge as a central part of their IT strategy but are not always using it to unlock innovation. These organizations typically perform well in terms of simplifying operations at the edge, managing edge infrastructure, securing the edge, gaining insights from edge data and improving sustainability via the edge.	**Edge Adapters** are highly likely to have edge as a central part of their IT strategy and are already using it to unlock innovation via this. These organizations typically perform well or extremely well in terms of simplifying operations at the edge, managing edge infrastructure, securing the edge, gaining insights from edge data and improving sustainability via the edge.	**Edge Leaders** will have edge as a central part of their IT strategy and already be unlocking innovation through edge. These organizations typically perform extremely well in terms of simplifying operations at the edge, managing edge infrastructure, securing the edge, gaining insights from edge data and improving sustainability via the edge.

Methodology

Dell Technologies commissioned independent market research specialist Vanson Bourne to conduct this research. The study surveyed 6,600 respondents from organizations with 100+employees from across the following regions: North America, LATAM, EMEA, APJ and Greater China. These organizations are from a range of public and private sectors.

All respondents either drive or influence innovation in their organization. Of the total number of respondents, 3350 are IT decision-makers (ITDMs) and 3250 are business decision-makers (BDMs). We asked only ITDMs to answer questions related to multicloud, data, edge, security and hybrid work strategy/performance in their organization.

The interviews were conducted online and via telephone in September and October 2022 and were undertaken using a rigorous multi-level screening process to ensure that only suitable candidates were given the opportunity to participate.

DELLTechnologies

Dell Technologies helps organizations and individuals build their digital future and transform how they work, live and play. The company provides customers with the industry's broadest and most innovative technology and services portfolio for the data era. **www.delltechnologies.com**

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VansonBourne

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